

The Truflow Lite System

Commercial Kitchen Exhaust and Supply Demand Ventilation Hood Controller

RPD-P-TL

General

Truflow Lite is a very simple, effective kitchen demand ventilation system.

The average commercial kitchen exhaust system operates at 100% capacity for 12 to 18 hours per day, blowing thousands of wasted energy dollars out the roof!

Truflow Lite measures heat from the appliances and automatically adjusts fan speeds throughout the day, giving you the precise amount of exhaust at all times.

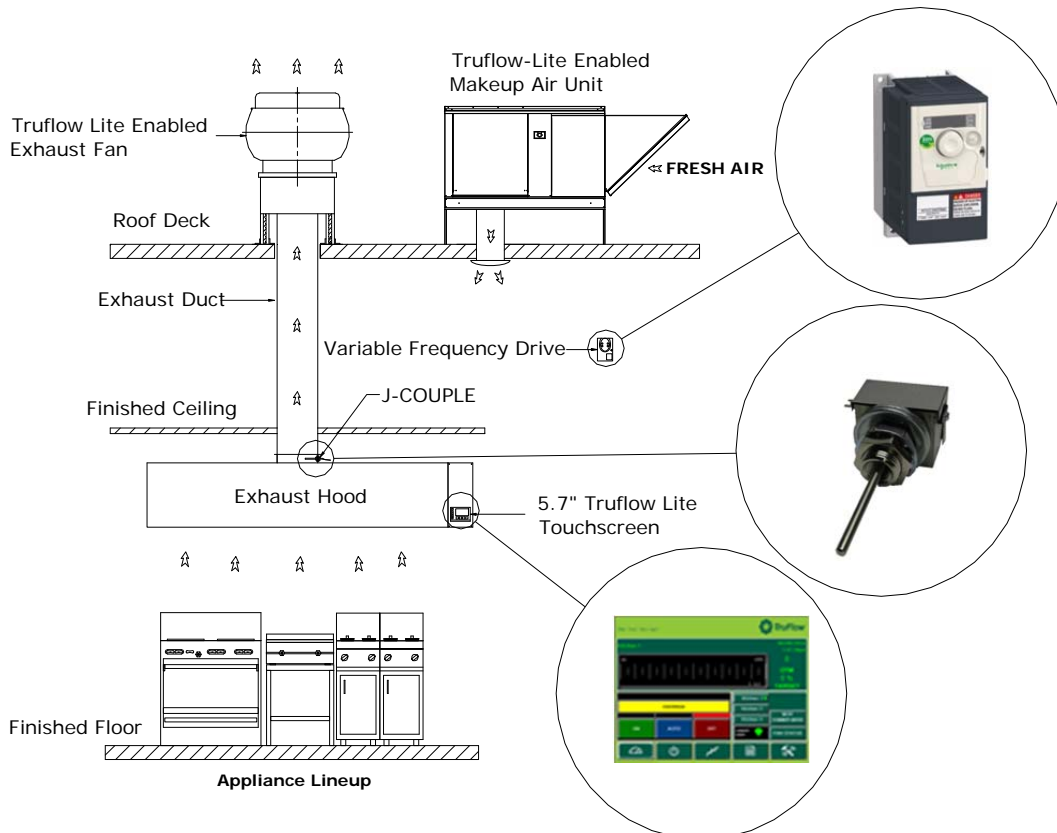
Truflow Lite instantaneously monitors ventilation system efficiency in real-time, so that you can manage your kitchen to take advantage of off peak times by turning down appliances. See what you are savings make is simple to know when to turn down appliances. You have the ability to increase the exhaust volume to 100% at any time. Because you control it, overrides

are kept to a minimum to maximize energy efficiency. The override system runs for an adjustable timed period of 15 minutes and can be activated at the hood or via a remote control.

Truflow Lite not only saves you money on energy expenses it can also help extend the life of your equipment by demanding exhaust only when it is really required. Truflow Lite can be specified on new hoods or can be retrofitted on your existing hoods. Since the panel can be hood mounted or wall mounted, it allows you many convenient options of where to locate the panel and wireless remote unit.

The Truflow Lite system reduces the amount of air exhausted from the kitchen to match the amount of cooking. As more appliances are used, the exhaust and supply volume increase, as less appliances are used the exhaust and supply volume decreases.

The Truflow Lite System



How Does It Work?

The TruFlow Lite demand ventilation controller has been designed to change kitchen exhaust forever. TruFlow Lite will automatically reduce the exhaust and supply air into the kitchen whenever appliances are not used at full capacity. When the appliances are not used and the heat is turned down or off TruFlow Lite automatically senses the reduction and decreases the amount of exhaust and supply to match exactly what is happening under the exhaust hood. The TruFlow Lite duct mounted J-Couple monitors the exhaust temperature, which fluctuates based on the amount of appliances operating under the exhaust

Specification

The commercial kitchen demand ventilation controller shall be a Spring Air Systems Truflow-Lite model RPD-P-TL. The Truflow-Lite shall provide automatic variable speed operation 24 hour/day for the commercial kitchen demand ventilation system. The 5.7" touchscreen panel shall be CSA certified and supplied in an 18GA stainless steel enclosure with No. 4 finish for hood, surface wall, mounting. The Truflow-Lite NEMA4x Touchscreen operates in conjunction with an integral PLC to provide daily reduction of the commercial kitchen exhaust and supply, and real-time temperature based control of energy target goal management. The Touchscreen controller shall be complete with Dashboard, System Control, Alarm Status, and Setup & Diagnostic screens.

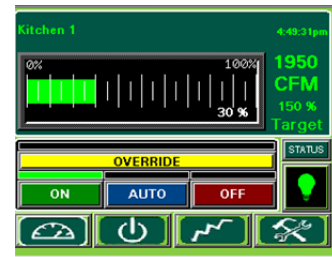
The Dashboard screen shall graph energy usage throughout the day measuring energy consumption against user set goals. The Dashboard screen also displays exhaust volume, hood lights, and % of goal reduction that is achieved each minute of the day.

The System Control screen displays all components of the kitchen ventilation system: Hood lights, fan on/off, summer/winter switch, and overrides. The Truflow-Lite is capable of providing two independent kitchens with a maximum of four exhaust variable speed drives and one supply variable speed drive and/or a 4-20 milliamp output for each system.

The Alarm Status Screen indicates and logs all alarm events which include; high temperature operation, electrical faults, J-couple faults, and supply drive communication error/failure and exhaust/supply drive communication error/failure.

The Truflow-Lite modulates the exhaust and supply volume through variable speed exhaust and supply motor drives and/or a 4-20 milliamp output. The kitchen demand ventilation system modulates from 30 to 100%. Pressing the screen override button will automatically

hood. As the amount of cooking increases the exhaust duct temperature rises and reaches an equilibrium temperature during each hour of the day. TruFlow Lite automatically modulates the exhaust and supply to suit the actual cooking operation at any given time during the cooking day.y.



increase the exhaust volume to 100%. This override time is adjustable in the screen setup

The System Setup screen is accessible by the administrator with a secure password to customize the screen to the user, enter reduction goal, and provide system diagnostics.

Remote Wiring Connections:

- High voltage power supply from breaker panel to input side of each drive
- High voltage power wiring from output side of each drive to fan mounted motor disconnect switch.
- Power supply from the variable speed supply fan drive to the supply fan disconnect switch if equipped with VFD
- Interlock each VFD with CAT5 connection in series.
- Power supply to the Truflow Lite control panel -120V/1/60 – 15 amps
- Interlock from Building Automation System (BAS), CAT5 cable.
- Interlock to shunt trip 120V/1/60 2 amps maximum
- Interlock to fire suppression system 120V/1/60 2 amps maximum
- Interlock two (2) wires 4-20 milliamp signal to supply fan variable speed drive when SC Truflow panel.

Options:

- Touch Screen is Hood or Wall mounted.
- Up to 2 exhaust fans and 12 hoods.
- Supply control is VFD or control signal.

RPD-P-TL